performed to assess the association between CKD stages and HRU/costs. **RESULTS:** The study identified 23,492 T2DM patients (mean age: 60.7 years; no CKD: 54.9%; stage 1: 7.1%; stage 2: 12.7%; stage 3A: 15.9%; stage 3B: 7.5%; stage 4: 1.8%). Patients with more advanced CKD stages were associated with greater odds of hospitalization compared to those without CKD (odds ratio [95% confidence interval] (stage 1: 1.14 [1.00–1.30]; stage 3A: 1.57 [1.43–1.72]; stage 3B: 1.84 [1.63–2.07]; stage 4: 2.66 [2.16–3.28]) and ER visits (stage 3A: 1.25 [1.15–1.37]; stage 3B: 1.34 [1.19–1.51]; stage 4: 1.55 [1.25–1.92]). Patients with CKD stage 1, 2, 3A, 3B, and 4 had total costs of 1.18, 1.17, 1.44, 1.54, and 1.80 times of those without CKD (all p<0.01). **CONCLUSIONS:** CKD in T2DM patients was associated with higher HRU and costs compared to those without CKD. Additionally, HRU and costs increased with more advanced stages of CKD. Prevention of CKD progression may help contain the economic burden.

PDB42

IMPACT OF DIABETES ON EXPENDITURES ASSOCIATED WITH SOFT SKIN AND TISSUE INFECTIONS

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OBJECTIVES: To assess the impact of diabetes on direct medical expenditures for visits and prescribed medications related to skin and soft tissue infections (SSTIs). **METHODS:** Hospital inpatient, outpatient, office, and emergency room visits and prescribed medications related to SSTIs were identified from the 2010 and 2011 Medical Expenditure Panel Survey. Total SSTI costs per patient per year were calculated by summing overall costs of all SSTI medical events. Differences in mean and median SSTI costs between patients with and without diabetes were assessed with the Wilcoxon-Mann-Whitney and median two-sample tests. **RESULTS:** We identified 1684 SSTI events from 438 patients, including 93 (21%) having diabetes. Events (761 to 923) and costs ($259,784.74 to $375,696.03) increased from 2010 to 2011. Patients with diabetes were older (61 vs. 47) and a greater percentage had public insurance (46% vs. 28%). Average SSTI costs per patient with diabetes in 2010 and 2011 were: $135.84 (standard deviation [sd]= 259.72) and $873.59 (sd=2275.98) for prescribed medicines, $8990.54 (sd=9506.02) and $8590.86 (sd=8685.70) for inpatient and emergency room, $706.61 (sd=1729.25) and $1255.25 (sd=3561.37) for outpatient and office. Average SSTI costs per patient without diabetes in 2010 and 2011 were: $143.91 (standard deviation [sd]= 411.68) and $46.71 (sd=78.07) for prescribed medicines, $832.92 (sd=1482.56) and $2431.65 (sd=7758.02) for inpatient and emergency room, $486.55 (sd=1237.81) and $568.32 (sd=1247.08) for outpatient and office. The mean total SSTI cost difference between patients with and without diabetes was $1627.93 ($2481.09-$853.16, p-value=0.1441) in 2010 and $1065.60 ($2604.75-$1539.15, p-value=0.1789) in 2011. The median total SSTI cost difference per patient per year was $78.61 ($237.72-$159.11, p-value=0.3948) and $38.21 ($237.00-$198.79, p-value=0.2666). **CONCLUSIONS:** In a nationally representative sample, mean and median SSTI costs related to medical visits and prescriptions were higher among patients with diabetes, however these costs did not differ significantly compared to patients without diabetes.

PDB43

EXPENDITURE ANALYSIS OF TWO YEAR PAYER COSTS OF COMMERCIALLY INSURED TYPE 2 DIABETES PATIENTS IDENTIFIED AS RECEIVING MULTIPLE DAILY INJECTIONS (MDI) OR INSULIN PUMP THERAPY (CSII) STRATIFIED BY RELATED DIAGNOSIS

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OBJECTIVES: Identify, categorize the two year costs (insurer paid amount) of intensive insulin treatment for patients diagnosed with type 2 diabetes. Focus on intensively-treated patients receiving MDI (multiple daily injections of insulin) or CSII (continuous subcutaneous insulin infusion). Investigate and measure the spending by payers for these patients determine which related diagnosis contribute the most to the two year aggregate. **METHODS:** Patients and their expenditures were identified retrospectively using administrative health care insurance claims from the 2010 and 2011 edition of Truven MarketScan Commercial. Patients were identified as having type 2 diabetes based on diagnosis from these claims. Treatment groups were assigned from medical-surgical and drug benefit claims for insulin, an insulin pump or related supplies. Patients with a claim for type 1 diabetes, gestational diabetes, cancer, HIV/AIDS, trauma, organ transplants were excluded. Patients in the lowest or highest 99th cost percentile and patients without continuous enrollment for the entire period were excluded. Expenditures were segmented by benefit type and were stratified separately as "diabetes-related" if the claim's primary ICD-9-CM code was related to diabetes. Conversely, claims with primary diagnosis codes not related to diabetes were classified as "not related to diabetes". **RESULTS:** After exclusions, there were 20,355 patients identified as MDI and 481 patients identified as using CSII. For both groups, the majority of the total treatment expenditures were not related to diabetes. For patients in the same treatment cohort of the prior year (ie. 2011 vs. 2010), the proportion of expenditures were similar. **CONCLUSIONS:** For patients identified as MDI or CSII, non-diabetes related costs were the highest contributors to aggregate payer spending. Further analysis is needed to determine if other characteristics of the patients analyzed have an effect on the proportion of costs.

PDB44

CHARGES AND HEALTH CARE RESOURCE USE IN PATIENTS WITH TYPE 2 DIABETES MELITUS AFTER TREATMENT INITIATION WITH SAXAGLIPTIN OR SITAGLIPTIN

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OBJECTIVES: To compare charges and resource use during the 6 months following treatment initiation with saxagliptin or sitagliptin. **METHODS:** A retrospective cohort study using a US insurance claims dataset was conducted to meet the study objectives. Adult patients with type 2 diabetes mellitus (T2DM) newly initiating treatment between January 1, 2010, and December 31, 2011, with either saxagliptin or sitagliptin were identified. A 1:1 propensity-matched sample of saxagliptin and sitagliptin patients was created to reduce any potential confounding. Propensity scores were generated based on demographic characteristics, comorbidities, disease severity and treatment patterns before the index date. Patients were required to have ≥6 months of continuous eligibility before (baseline period) and after (follow-up period) treatment initiation. All outcomes were assessed based on an intent-to-treat analysis in the 6-month follow-up period. Both overall and diabetes-specific charges were computed; breakdowns of medical and overall (medical plus pharmacy) charges were compared. Appropriate univariate statistical tests were applied to the propensity-matched sample to examine differences in resource utilization outcomes. **RESULTS:** A total of 8,438 and 23,155 patients initiated treatment with saxagliptin and sitagliptin, respectively. After matching, each cohort consisted of 7,700 patients. Compared with sitagliptin, during the follow-up period, saxagliptin was associated with significantly lower (all p values ≤0.01) overall charges ($13,203 ± $28,391 vs. $14,258 ± $35,586), diabetes-related overall charges ($5,106 ± $12,129 vs. $5,402 ± $14,201), overall medical charges ($9,454 ± $27,616 vs. $10,502 ± $34,903), and diabetes-related medical charges ($3,389 ± $12,080 vs. $3,689 ± $14,161). Accordingly, saxagliptin was associated with a lower proportion of patients recording an inpatient stay (6.6% vs. 8.1%; p=0.001) or diabetes-related inpatient stay (4.6% vs. 5.4%; p=0.025). **CONCLUSIONS:** Patients initiating saxagliptin treatment reported lower charges and lower hospitalization rates (overall and diabetes-related) compared with patients initiating sitagliptin.

PDB45

CONTINUOUS GLUCOSE MONITORING SYSTEMS: TRENDS IN UPTAKE, PATIENT COSTS, AND RESOURCE UTILIZATION

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OBJECTIVES: Wearable health monitoring devices have become increasingly available and allow for real-time tracking of clinical values. This research aims to assess the trends in continuous glucose monitor (CGM) uptake and to examine differences in costs and resource utilization following their initial use. **METHODS:** Adults aged 18-64 with a diagnosis for diabetes (ICD-9-CM 250.xx) and continuous enrollment in commercial insurance were identified from the Truven Health MarketScan databases (2008-2012). An initial procedure code for CGM (CPT 95250) at least one year after the initial diagnosis and the lack of a previous claim for CGM identified eligible subjects within each year from 2009-2011; the date of the qualifying CGM claim served as the index date. Costs and utilization for pharmacy, inpatient, emergency department, specialty, laboratory, and primary care services were compared between each annual cohort and between the year prior to and following the index date. **RESULTS:** From 2009 to 2011, the number of initial patients using CGM declined, from 1,001 to 770 (p-value for trend <0.001). The total average costs to treat these patients increased between 2009 and 2010 before declining in 2011, mostly due to dramatic changes in costs related to outpatient pharmacy and inpatient services. Compared to before the CGM was placed, mean annual costs for primary care visits and laboratory services tended to decrease while the average number of primary care visits consistently and significantly declined (all p<0.05). However, noticeably higher mean costs related to outpatient pharmacy services were accrued following CGM use in both 2009 and 2010. **CONCLUSIONS:** Devices such as CGM may benefit ongoing patient care by providing more regular insight to treatment progression and, in some cases, lead to more efficient care.

PDB46

LIRAGLUTIDE: A PHARMACOECONOMIC REVIEW OF ITS USE IN TYPE II DIABETES

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OBJECTIVES: As novel treatments for type II diabetes enter the market, there is a need to assess their long-term clinical and economic outcomes compared to current treatments. These comparisons can assist decision-makers in determining the appropriate place in therapy. Our objective was to review the existing pharmacoeconomic literature evaluating the cost-effectiveness and overall costs of treatment associated with liraglutide in type II diabetes. **METHODS:** We identified English-language cost-effectiveness, cost-utility or cost analyses that compared liraglutide to one or more anti-diabetic agents via MEDLINE and EMBASE through March 1, 2013. Full text articles meeting the inclusion criteria were retrieved and information on the study design and results were abstracted. Costs were converted to 2012 US dollars in order to facilitate comparisons across studies. **RESULTS:** A total of 3 cost comparison studies and 6 cost-utility studies were identified for inclusion. Across cost comparison studies, liraglutide treatment resulted in cost savings ranging from $1,075 to $1,298 (1.2 mg) and $1,162 to $2,147 (1.8 mg) over a 10 year time horizon. Cost-utility analysis results reported base case ICERs ranging from $15,774 to $40,128/QALY for liraglutide 1.2 mg and $8,497 to $66,031/QALY for liraglutide 1.8 mg. Estimates were most sensitive to variations in time horizon and cardiovascular complication rates. Based on often cited cost-utility thresholds, liraglutide was determined to have a probability of being cost effective between 58% (liraglutide 1.8 mg vs. sitagliptin 100 mg) and 93% (liraglutide 1.2 mg vs. glimepiride 4 mg). **CONCLUSIONS:** Liraglutide appears to be a cost-effective adjunct treatment for type II diabetes and may also be associated with a reduction in diabetes-related complication costs; however, ICER values are largely dependent on the duration of liraglutide treatment benefit and the time horizon of the analysis.

PDB47

LIFE YEARS LOST AND LIFETIME HEALTH CARE EXPENDITURES ASSOCIATED WITH DIABETES IN THE UNITED STATES

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